

28709

S/021/61/000/008/004/011  
D210/D303

On reducing a system ...

there is a unique solution of the system (9) where the right-hand sides are functions differentiable with respect to  $\tau$  any number of times which can be expanded into asymptotic series of the form (13) in the domain (14). A lemma is then given to demonstrate the theorem. There are 3 references: 2 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: Y. Sibuya, Journal Fac. Science Univers. Tokyo 7, 527 (1958).

ASSOCIATION: Instytut matematyky AN URSR (Institute of Mathematics, AS UkrSSR)

PRESENTED: by Academician AS UkrSSR Y.Z. Shtokalo

SUBMITTED: December 30, 1960

Card 6/6

27669  
 S/041/61/013/003/002/010  
 B112/1125

*H.3400*

AUTHOR: Ilyukhin, A. G.

TITLE: Reduction of a system of ordinary differential equations which depend on a parameter

PERIODICAL: Ukrainskiy matematicheskiy zhurnal, v. 13, no. 3, 1961, 46-58

TEXT: With the aid of a transformation:  $y = Uz$  the author transforms the system of equations:  $dy/dt = Ay$  into a system of equations:  $dz/dt = Nz$ , whose matrix  $N$  has the Jordan normal form. The matrices  $A$ ,  $U$  and  $N$  depend on  $\tau = \epsilon^\sigma t$  ( $\sigma$  is a positive integer) and the small parameter  $\epsilon$ . They can be expanded into a power series of  $\epsilon$ . The author determines the reduced matrix  $N = U^{-1}AU - U^{-1}dU/dt$  and the transformation matrix  $U$  via a matrix  $Q = V^{-1}U$ . The matrix  $A^{(0)}$  (the first term of the series expansion of  $A$ ) is transformed into the Jordan normal form by transformation  $V$ . The recurrence formulas for determining  $Q$  have the form:

$$W^{(0)}Q^{(\nu)} - Q^{(\nu)}W^{(0)} = N^{(\nu)} - H^{(\nu)} \quad (\nu = 0, 1, 2, \dots).$$

The matrices  $H^{(\nu)}$  are polynomials of  $Q^{(\mu)}$ ,  $dQ^{(\mu)}/dt$ ,  $V^{-1} \frac{dV}{dt} Q^{(\mu)}$  and  $N^{(\mu)}$  ( $\mu < \nu$ ).  $W^{(0)}$  is

Card 1/2

Reduction of a system of ...

27669  
S/041/61/013/003/002/010  
B112/B125

X

the abbreviation of  $V^{-1}_A(o)V$ . The author uses this reduction in order to derive an existence and uniqueness theorem for real variables. He thanks Professor S. F. Feshchenko. There are 5 references: 2 Soviet and 3 non-Soviet.

SUBMITTED: December 12, 1960, Kiyev

Card 2/2

ILYUKHIN, A.G.

Approximate method for solving a mixed problem for a nonlinear  
partial differential equation containing a small parameter.  
Ukr. mat. zhur. 14 no.3:250-259 '62. (MIRA 15:9)  
(Differential equations)

ILYUKHIN, A.I., ~~inshener~~ (Sverdlovsk)

Minimum starting torque of an asynchronous motor with contractor  
control. Elektrichestvo no.6:29-30 Ja '56. (MIRA 9:9)  
(Electric motors, Induction)

*И. И. И. И. И.*

**AUTHOR:** Ilyukhin, A.I., Mining Engineer

127-12-25/28

**TITLE:** On the Article of R.P. Rshondkovskiy "Air-Regulating Devices of Modern Drills" (Na stat'yu R.P. Rshondkovskogo "Vozdukhora-spredeitel'nyye ustroystva sovremennykh perforatorov")

**PERIODICAL:** Gornyy Zhurnal, 1957, No 12, p 69 (USSR)

**ABSTRACT:** This note is a review of R.P. Rshondkovskiy's article published in the Gornyy Zhurnal, 1957, No 1. The reviewer is of the opinion that the article under consideration not only failed to eliminate a confusion existing between the terms "valve" and "slides" in drills, which the article intended to accomplish, but also omitted some important characteristics of the air-regulating devices in drills.

**ASSOCIATION:** Sverdlovsk Mining-Metallurgical Tekhnikum (Sverdlovskiy gorno-metallurgicheskii tekhnikum)

**AVAILABLE:** Library of Congress

Card 1/1

*Institute of Geology and Geophysics  
(for Fedorov)*

BOROKHOVICH, Aleksandr Iosakovich; ILYUKHIN, A. I., inzh., red.; TSYMBALIST,  
N.M., red. izd-va; ZEP, Ye.M., tekhn. red.

[Maintenance and repair of mine equipment; a textbook for schools  
and courses for master workers] Eksploatacia i remont oborudovaniia  
shakht i rudnikov; uchebnoe posobie dlia shkol i kursov masterov.  
Sverdlovsk, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi  
metallurgii, 1958. 478 p. (MIRA 12:3)  
(Mining machinery--Maintenance and repair)

ILYUKHIN, A.I., gornyy inzh.

Review of the book "Mining machinery" by A.V. Tekhmishchan and others.  
Gor. zhur. no.6:78-80 Je '63. (MIRA 16:7)

1. Sverdlovskiy gornometallurgicheskii tekhnikum.  
(Mining machinery) (Tsetnarskii, I.A.) (Kazanskii, A.S.)  
(Semenov, V.M.) (Korablev, A.A.)  
(Tekhmishchan, A.V.)

ILYUKHIN, A. I., gornyy inzh.

Don't repeat mistakes! Ger. zhur. no.8:77-79 Ag '63. (MIRA 16:9)

1. Sverdlevskiy gornometallurgicheskiy tekhnikum.  
(Mining machinery)

ILYUKHIN, A.I., inzh.; ARTEMOV, A.I., inzh.

Design of a metal rheostat for a two-motor drive of a hoist.  
Izv. vys. ucheb. zav.; gor. zhur. 6 no.8:174-179 '63.

(MIRA 16:10)

1. Sverdlovskiy gornometallurgicheskiy tekhnikum imeni Polzunova  
(for Ilyukhin). 2. Kemerovskiy gornyy institut (for Artemov).  
Rekomendovana kafedroy gornoy elektrotehniki Kemerovskogo  
gornogo instituta.

ILYUKHIN, A.I., inzh.

Analytical variations of two methods of calculating starting resistances. Izv. vys. ucheb. zav.; gor. zhur. 6 no.6:159-163 '63. (MIRA 16:8)

1. Sverdlovskiy gornometallurgicheskiy tekhnikum.  
(Electric motors, Induction)

ILYUKHIN, A. V.; KOZINETS, G. I.

Study of the phagocytic activity of transfused leucocytes in the  
body of the recipient. Probl. gemat. i perel. krovi no.10:54-56 '61.  
(MIHA 14:12)

1. Iz Tsentral'nogo ordena Lenina instituta gematologii i perelivaniya  
krovi (dir. - deystvitel'nyy chlen AMN SSSR prof. A. A. Bagdasarov  
[deceased]) Ministerstva zdravookhraneniya SSSR.

(BLOOD--TRANSFUSION) (PHAGOCYTOSIS) (LEUCOCYTES)

ILYUKHIN, A. V.

Studies on the adaptation of transfused leucocytes. Probl.  
gemat.i perel.krovi no.2:33-38 '62. (MIRA 15:1)

1. Iz radiobiologicheskoy laboratorii (zav. - prof. M.O.  
Raushenbakh) i laboratorii konservirovaniya krovi (zav. -  
prof. F.R. Vinograd-Finkel') Tsentral'nogo ordena Lenina insti-  
tuta gematologii i perelivaniya krovi (dir. - dotsent A.Ye.  
Kiselev) Ministerstva zdravookhraneniya SSSR.  
(BLOOD--TRANSPLANTATION) (LEUCOCYTES)

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27.2400

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S/241/62/007/002/004/004

1015/1215

**AUTHOR:** Bagdasarov, A. A. (Deceased), Sukyasyan, G. V., Bogoyavlenskaya, M. P., Kozinets, G. I., Ilyukhin, A. V., and Rauschenbakh, M. S.

**TITLE:** Bone marrow transfusion for treatment of depressed hemopoiesis following irradiation

**PERIODICAL:** Meditsinskaya radiologiya, v. 7, no. 2, 1962, 68-71

**TEXT:** The necessity to continue radiation therapy in cases of malignant neoplasms forces one to look for efficient rapidly-acting hemopoiesis-stimulating means. Transfusion of homologous bone marrow was tried first on dogs and monkeys after induction of acute radiation sickness. 80-95% of cells preserved their ability for further division and that hemopoiesis subsequently improved markedly. This method was then tried on 40 patients who received 70 transfusions of homologous bone marrow. This treatment had a marked therapeutic effect in most of the patients, particularly among those with the subacute varieties of hypo- and aplastic anemia. The authors conclude, however, that the small number of cases examined is insufficient for definite evaluation of the therapeutic effect of this method.

**SUBMITTED:** November 20, 1961

Card 1/1

X

BOGOMOLOVSKAYA, M.P.; ZOTIKOV, Ye.S.; BLYUKHIN, A.M.; KOSHINETS, G.I.;  
KRASYUKOVA, L.I.; GUREVICH, I.B.

Mechanism of therapeutic action of bone marrow transplantation in  
the treatment of radiation sickness. Med. rad. 8 no. 6:63-68  
Je '63. (MIRA 17:4)

1. Iz radiobiologicheskoy laboratorii (zav. - prof. N.O. Raushnbakh)  
i serologicheskoy laboratorii (zav. - kand. med. nauk Ye.A. Zotikov)  
TSentral'nogo ordena Lenina instituta gematologii i perelivaniya  
krovi.

ILYUKHIN, A.V.; KOZINETS, G.I.; SUKYASYAN, G.V.

Distribution of transfused leucocytes and cells of the bone marrow in the organs and tissues of the recipient. Probl. gemat. i perel. krovi 8 no.7:46-51 J1 '63. (MIRA 17:1D)

1. Iz radiobiologicheskoy laboratorii (zav. -prof. M.O.Raushenbakh)  
TSentral'nogo ordena Lenina instituta gematologii i perelivaniya krovi  
(dir. -dotsent A.Ye.Kiselev) Ministerstva zdravookhraneniya SSSR.

ИЛЮХИН, И. П.  
**ILYUKHIN, I.P., shtukatur**

Precast cornices made of gypsum plaster. Rats. i izobr. predl. v  
stroj. no.2:74-77 '57. (MIRA 1:1)  
(Cornices)

ILYUKHIN, Ivan Petrovich; SPIRIDONOVA, O.M., kand.tekhn.nauk, nauchnyy  
red.; ROZENBERG, A.S., red.isd-va; PUL'KINA, Ye.A., tekhn.red.

[Work of a master plasterer] Rabota master-shtukatura. Leni-  
grad, Gos.isd-vo lit-ry po stroit., arkhit. i stroit. materia-  
lam, 1958. 81 p. (MIRA 12:8)

(Plastering)

SEREGIN, A.M.; BAZHENOVA, T.B.; VISOISEY, V.I.; BITUMIN, L.H.; SAKHAROV,  
V.D.

Oil-source and reservoir properties of the Cambrian sediments  
of the Yenisey part of the Siberian Platform. Izv. vys. ucheb.  
zav.; neft' i gaz 7 no.9:11-13 '64. (MIRA 17:12)

1. Moskovskiy gosudarstvennyy universitet im. Lomonosova.

~~ILYUKHIN, Nikolay Vasil'yevich, polkovnik; SOKOLOV, V.D., podpol-  
kovnik, red.; MEDNIKOVA, A.N., tekhn. red.~~

[Bulgarian People's Army] Bolgarskaia Narodnaia armia.  
Moskva, Voenizdat, 1963. 87 p. (MIRA 16:9)  
(Bulgaria--Army)

ИЛЮХИН, Н. В.  
ILYUKHIN, N. V.

Issledovanie teploobmena i soprotivleniia pri statsionarnom dvizhenii gaza so sverkhvysokimi skorostiami. (Akademii Nauk SSSR. Izvestiia. Otdelenie tekhnicheskikh Nauk. 1946, no. 5, p. 703-718, diagrs.)

Title tr.: Investigation of heat transfer and friction loss for steady flow at ultra-high velocities.

AS262.A6244 1946

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955

ILVUKIN, N. V.

B 1

32

Investigation of the Heat Transmission and Losses in a Steady Flow of Gas at Ultrahigh Velocities. N. V. Ilvukin. *Bulletin of the Academy of Sciences of U.S.S.R. (Section of Technical Sciences)*, no. 5, 1946, p. 703-710.

A theoretical dependence has been established for determination of the coefficient of heat exchange and losses during flow of gas at high speeds. This permitted determination of the influence of the temperature factor on the law of heat transmission and losses. Data obtained from experimental investigation fully proved the above established dependence.

ИЛЮХИН, Н. В.

PHASE I TREASURE ISLAND BIBLIOGRAPHICAL REPORT AID 283 - I

BOOK Call No. TJ265.74

Author: ILYUKHIN, N. V., Kand. of Eng. Sci.

Full Title: HEAT TRANSMISSION AND RESISTANCE AT HIGH VELOCITIES

Transliterated Title: Teploperedacha i soprotivleniye pri vysokikh skorostyakh

Publishing Data

Originating Agency: Ministry of the Heavy Machine-Building Industry. (Glavkotloturboprom). Central Scientific Research Inst. of Boilers and Turbines im. I. I. Polzunov. (T=KTI). This article is from a series teploperedacha i aerogidrodinamika (Heat Transmission and Aero-Hydrodynamics), book 2, issue 1, p. 3-27.

Publishing House: State Scientific and Technical Publishing House of Literature on Machine Building. (Mashgiz)

Date: 1947 No. of copies: 3,000

Editorial Staff

Editor: Shubenko, L. A., Laureate of Stalin Prize, Kand of Eng. Sci. Tech. Ed.: None

Editor-in-Chief: Fetisov, F. I., Leningrad Div. of Mashgiz. Appraisers: None

Text Data

Coverage: The article contains the analysis of works of Nusselt, Stodola, Noak, Meyer, Jung and other investigators on heat transmission and  
1/2

Teploperedacha i soprotivleniye pri vysokikh

AID 233 - I

particularly on the effect of the temperature factor. The author describes his own investigation and evaluates the results of his tests at high and ultra high velocities approaching the transonic. 15 charts and 7 drawings.

The article appears to be interesting for its data on the theoretical and experimental research on heat transmission and resistance of gas at high velocity obtained through special test equipment.

**Purpose:** Research data can be used by designers of high pressure steam generators and gas turbines.

**Facilities:** Central Scientific Research Inst. for Boiler and Turbines (TsKTI) and All-Union Heat Engineering Inst. in. F. E. Dzerzhinskiy. (VTI)

**No. of Russian References:** 5 (1935-39).

**Available:** Library of Congress.

2/2

ILYUKHIN, M.V.

Investigation of heat transfer and friction loss for steady flow at ultra-high velocities. (The Engineers' Digest, May 1947, v. 4, no. 5, p. 213-214, diagrs.)

Trans. of I: sledovanie teploobmena i soprotivlenia pri statSIONARNOM dvizhenii gaza so sverkhvysokimi skorostiami. For abstract see The Aeronautical Engineering Index, 1947, p. 57.

TAL.E74193 v.4

SO.

Aeronautical Science and Aviation in the Soviet Union. Library of Congress, 1955.

ILYUKHIN, N. V.

Investigation of heat transfer and friction loss for steady flow at ultra-high velocities. (The Engineers' Digest, May 1947, v. 4, no. 5, p. 213-214, diags.)

Trans of Issledovanie teploobmena i soprotivleniia pri statSIONarnom dvizhenii gaza so sverkhysokimi skorostiami

For abstract see the Aeronautical Engineering Index, 1947, p. 57

TA1,E74193 v. 4

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955

ILYUKHEIN, N. V.

PHASE I

TREASURE ISLAND BIBLIOGRAPHICAL REPORT

AID 290 - I

BOOK

Call No. T12651TL

Authors: GUKHMAN, A., Prof. Dr. of Phys. Sc.; ILYUKHEIN, N. V., Kand of Eng. Sci; GANDEL'SMAN, A. F., Eng; and NAURITS, L. N., Eng.

Full Title: EXPERIMENTAL STUDY OF HEAT EXCHANGE AND RESISTANCE IN SUBSONIC REGION

Transliterated Title: Eksperimental'noe issledovanie teolookhmena i soprotivleniya b dozvukovoy oblasti

Publishing Data

Originating Agency: Ministry of heavy Machine Building Industry. (Glavkotlorturboprom) Central Scientific Institute on Boilers and Turbines. (TsKTI). This is an article from Teploperedacha i aerogidrodinamika. (Heat Transmission and Aero-hydrodynamics), book 21, #5, pp. 5-58.

Publishing House: State Scientific and Technical Publishing House of Literature on Machine Building.

Date: 1951

No. of copies: 2,000

Editorial Staff

Editor: Prof. Gukhman, A. A., Dr. Phys.-Math. Sci.

Tech. Ed.: None

Editor-in-Chief: Golovin, S. Ya., Eng.

Appraisers: None

Text Data

Coverage: The authors describe a systematic study of heat exchange in gas moving at subsonic speed. Experimental data are incorporated with the results of other investigators to form a general hydrodynamic theory of heat exchange based on dimensional analysis and the use of different criteria

Ekspperimental'noe issledovanie teploobmena i soprotivleniya b  
dozvukovoy oblasti

AID 290 - I

Nu, Re, Pe, etc. 21 charts, 15 drawings and 7 tables.

The article presents methods of solution of those problems different  
from those usually given in American literature.

**Purpose:** The book is intended for workers in scientific research institutions and  
for designing engineers in the field of heat installation.

**Facilities:** The article is a continuation of a series of other articles on the  
same subject published in the periodicals of the Central Scientific  
Institute for Boilers and Turbines (TsKTI) and of the All-Union  
Heat Engineering Inst. (VTI)

**No. of Russian References:** 7 (1946-49)

**Available:** Library of Congress

ILYUKHIN, N. V.

PHASE I

TREASURY ISLAND BIBLIOGRAPHICAL REPORT

AID 293 - I

BOOK

Call No.: TJ265.T4

Authors: GUKHMAN, A. A., Prof., Dr. Phys. Math. Sci.; NAUKITS, I. N., Eng.  
ILYUKHIN, N. V., Kand. Eng. Sci.; GNADEI'SMAN, A. F., Eng.

Full Title: EXPERIMENTAL STUDY OF THERMOCOUPLE READINGS WITHIN LONGITUDINAL  
GAS FLOW AT HIGH VELOCITY

Transliterated Title: Eksperimental'noye issledovaniye prodol'no obtekayemoy  
termopary pri techenii gaza s bol'shoy skorost'yu

Publishing Data

Originating Agency: Ministry of the Heavy Machine-Building Industry.  
(Glavkotturboprom). Central Scientific Institute of Boilers  
and Turbines (TsKTI). This is an article from teploperedacha i  
aerogidrodinamika (Heat Transmission and Aero-hydrodynamics).  
Book 21, #5, p. 83-110.

Publishing House: State Scientific and Technical Publishing House of Literature  
on Machine Building

Date: 1951

No. of copies: 2,000

Editorial Staff

Editor: Prof. Gukhman, A. A., Dr. Phys.-Math. Sci. Tech. Ed.: None

Editor-in-Chief: Golovin, S. A., Eng. Appraisers: None

Text Data

Coverage: The article deals with the experimental study of the significance of the  
location of thermocouple, within a stream of heated gas moving with high

Экспериментальное исследование предельно допустимой температуры  
при течи газа с большой скоростью

АИД 294 - I

velocity. Experimental methods and equipment are described with 8 drawings. The test results are evaluated in 6 tables for magnitude of relative error due to thermodynamic and hydrodynamic conditions. 13 charts and 3 tables with test data.

The test equipment, method and final results appear to be interesting for workers in heat transmission.

**Purpose:** The book is intended for workers in scientific research institutions and for design engineers in the field of heat installations.

**Facilities:** Central Scientific Institute for Boiler and Turbines (TsKTI).

**No. of Russian References:** 3 (1938-49).

**Available:** Library of Congress.

ILYUKHIN, N. V., GANDEL'SMAN, A. F., NAURITS, L. N. and GUKHNAN, A. A.

"Study of Local Values of the Resistance Coefficient in the Subsonic Region of Flow" MO Ts KTI (1952)

GUKHMAN, A. A.; ILYUKHIN, N. V.

Gases, Flow of

"Principles of heat exchange in high-velocity flow of gases." A. A. Gukhman,  
N. V. Ilyukhin. Reviewed by V. L. Lel'chuk. Izv. VTI, 21, No. 7, 1952.

Monthly List of Russian Accessions, Library of Congress October 1952. Unclassified.

ILYUKHIN, N. V.

USSR/Physics - Thermoelements

Feb 52

"Investigation of Thermoelements as Temperature Meters in a Gas Flow at High Velocity," A. F. Gandel'sman, N. V. Ilyukhin, L. N. Maurits.

"Zhur Tekh Fiz" Vol XXII, No 2, pp 268-276

Analyzes complex processes of interaction of gas flow with solid body occurring when thermoelements are used to measure temp of gas flowing at high speed. Problem requires further investigation. Indebted to Prof A. A. Gukhman. Received 4 Mar 51.

200106

ILYUKHIN, N. V.

USSR/Physics - Heat Exchange

May 52

"Effect of Thermal Factor on Intensity of Heat Exchange," A. A. Gukhman, N. V. Ilyukhin

"Zhur Tekh Fiz" Vol XXII, No 5, pp 784-793

Shows insufficiency of computational methods based on phys consts related to the av temp, and outlines the necessity to introduce a thermal factor as a supplementary argument. Proves that the direction of the heat stream has no effect on the intensity of heat exchange during motion of the gas in the tube. Received 16 Jan 52.

22/180

IL'YUKHIN, N. V.

FA 24CT104

USSR/Physics - Flow Gage

Dec 52

"Experimental Investigation of a Temperature Gage of the Flow Type in a High-Velocity Gas Stream," N. V. Il'yukhin and L. N. Naurits

"Zhur Tekh Fiziki" Vol 22, No 12, pp 2014-2025

Authors refer to their previous work ("Heat Transfer and Aerodynamics," Book 21, No 5, 1951; "Fundamentals of Heat Transfer in High Velocity Stream," 1951). Here they describe results of test of temp gage with regulated air expenditure. Coef of recovery of apparatus and instructions for operation are given. Indebted to Prof A. A. Gukhman. Received 16 Jul 52.

110713

U.S.S.R.

23/114

532.542

The Study of the Coefficient of Resistance for Near-Sonic Velocities

L. E. Gandelman, A. A. Gultman, A. V. Lyukhin and E. M. Naumov

Zh. tekhn. fiz.  
24(12), 2234-2249  
1954

U.S.S.R.

The flow of compressible fluid in a straight cylindrical tube without heat exchange was studied for Re numbers in the interval of  $2.4 \times 10^3 - 7.3 \times 10^5$  for all velocities up to  $M = 0.8$ . The resistance was inversely proportional to the velocity, while at  $M = 0.8$  it showed a gradual increase, after which it fell steeply. While using the

... equations containing the coefficient of resistance its dependence on the Mach numbers should be taken into consideration, particularly for near-sonic velocities (Fig. 1).

*IL'YUKHIN, N.V.*

AID P - 1243

Subject : USSR/Engineering

Card 1/1 Pub. 110-a - 4/17

Authors : Gandel'sman, A. F., Eng., Gukhman, Doc. of Phys.-Math. Sci. and Il'yukhin, N. V., Kand. of Tech. Sci.

Title : Study of measurement of the resistance coefficient of a flow of gas moving with supersonic velocity

Periodical : Teploenergetika, 1, 17-23, Ja 1955

Abstract : Results are analyzed of experimental research on the flow of gas moving with supersonic velocity in a conic channel. A method of calculation is presented. Diagrams. Reference is made to 3 Russian books (1948-1954).

Institution : Central Boiler and Turbine Institute

Submitted : No date

ILYUKHIN, N. V.

PERIODICAL ABSTRACTS

Sub.: USSR/Engineering

AID 4167 - P

ILYUKHIN, N. V.

IZMEREVIYE TEMPERATURY V POTOKE GAZA VYSOKOY SKOROSTI  
(Measuring temperature of high-velocity gas flow). Teploenergetika,  
no. 2, P 1956: 20-25.

Research on various temperature measuring devices (thermo-couples, etc.) in a gas flow of great velocity is reported. The temperature of the gas flow motion as it slows was studied. The measuring instruments and their operation is explained in great detail. Fourteen diagrams.

"APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R000618520018-0

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R000618520018-0"

ILYUKHIN, N.V., kandidat tekhnicheskikh nauk.

Utilization of nuclear fuel in English power industry.  
Energomashinostroenie no.9:26-29 8 '56.

(MLRA 9:10)

(Great Britain--Atomic power industry)

*Status of power engineering in Great Britain.*

*Ядерная энергетика 3*

ILYUKHIN, N.V., kandidat tekhnicheskikh nauk.

Notes on turbine manufacturing in Great Britain. *Energomashinostroyeniye*  
no.12:27-31 D '56. (MIRA 10:1)

(Great Britain--Turbines)

ILYUKHIN, N.V.

114 - 1 - 14/15

**AUTHOR:**

Ilyukhin, N. V., Cand. Tech. Sc.

**TITLE:**

Gas Turbines in British Power Engineering. (Gazovyye turbiny v. energetike Anglii)

**PERIODICAL:**

ENERGIOMASHINOSTROYENIYE, 1957, No. 1, pp. 28-31, (U.S.S.R.)

**ABSTRACT:**

A brief review is given of published information, which contains critical notes on the use of gas turbines as prime movers for generating industrial power. This information is based on operational experience gained with the first gas turbine installed by the Central Electricity Board.

There are 2 diagrams, 5 photographs, and 5 references, none of which are Slavic.

**ASSOCIATION:**

**PRESENTED BY:**

**SUBMITTED:**

**AVAILABLE:** Library of Congress

31b

**AUTHOR:** Ilyukhin, N.V., Candidate of Technical Sciences.

**TITLE:** Problems of boiler construction in England. (Voprosy kotlostroyeniya v Anglii.)

**PERIODICAL:** "Energomashinostroenie" (Power Machinery Construction), 1957, No. 5, pp. 27 - 30, (U.S.S.R.)

**ABSTRACT:** The author was one of a delegation of Soviet power engineers which visited the Works of Babcock and Wilcox at Renfrew. This article is a factual statement about the standing of this company, the types of boilers that they have manufactured and the available production facilities. The arrangement of Babcock and Wilcox's boilers is described and several special pieces of equipment are mentioned. A brief account is given of the laboratory facilities available and of the work that is being done there.

6 figures, no literature references.

ILYUKHIN, N.V., kand. tekhn. nauk.

Role of the Central Boiler and Turbine Institute in the technical  
advances of power machinery manufacturing in our country. *Energo-*  
*mashinostroenie* 3 no.11:15-21 N '57. (MIRA 10:12)  
(Machinery industry--Research)

AUTHOR: Ilyukhin, N.V. (Cand. Tech. Sc.) 260  
TITLE: Analysis of breakdowns in the equipment of thermal power stations in Great Britain. (Analiz avariyn oborudovaniya na teplovykh elektrostantsiykh Anglii).  
PERIODICAL: "Teploenergetika" (Thermal Power), Vol. 4, No. 4, April, 1957, pp. 49-53 (U.S.S.R.)

ABSTRACT: The author was one of a group who visited ten CEA power stations, the main characteristics of which are tabulated. He notes that in England when a power station is extended in effect a new station is built. In conversation with operating staff it appeared that the equipment was very reliable and everything appeared to be in good order. Factual data about reliability of equipment was obtained from the (British) Central Electricity Authority. The information about breakdowns and faults is tabulated in great detail. The author notes that a large number of breakdowns (88 cases out of 249) took place because of defects of production, erection and construction which led to a power loss of 77 MW or 49% of the total loss. Natural wear caused 94 stoppages with a power loss of 21 MW. Bearing in mind that all these data relate only to the operation of modern turbo-generators it is difficult to understand the large number of stoppages due to natural wear of the equipment and the large number that arose from

Analysis of breakdowns in the equipment of thermal power stations in Great Britain. (Cont.)

260

unexplained causes. There were 61 such stoppages which led to a power loss of 56 MW which is about 36% of the total power loss. No figures, no literature references, 7 tables.

ILYUKHIN, N.V., kand.tekhn.nauk.

Achievements of boiler and turbine industry in the U.S.S.R.  
Vest.mash. [37] no.11:27-32 N '57. (MIRA 10:10)  
(Boilers) (Turbines)

ILYUKHIN, Nikolay Yevseyevich; ZYKOV, S.A., kand. tekhn. nauk, retsenzent;  
GURVICH, A.M., prof., doktor tekhn. nauk, red.; VANKOVETSAYA, red.  
izd-va; POL'SKAYA, P.G., tekhn. red.

[Power engineering and power machinery manufacturing in Great  
Britain] Energetika i energomashinostroenie Anglii. Moskva, Gos.  
nauchno-tekhn. izd-vo mashino-stroit. lit-ry, 1958. 138 p.  
(Great Britain—Power engineering) (MIRA 11:7)

IL'YUKHIN, N.V., kand. tekhn. nauk.

Outlook for the development of boiler and turbine production. *Energy-*  
 *mashinostroenie* 4 no.8:1-5 Ag '58. (MIRA 11:11)  
(Steam turbines) (Power engineering)

ILYUKHIN, N.V.; DESHKIN, V.N., prof., retsenzent; ZYKOV, S.A., kand.tekhn.  
nauk, red.; DUDUSOVA, G.A., red.izd-va; SHCHERFININA, L.V., tekhn.red.

[Technical progress in power machinery manufacture] Tekhnicheskii  
progress v energomashinostroenii. Moskva, Gos.nauchno-tekhn.izd-vo  
mashinostroit.lit-ry, 1959. 114 p. (MIRA 12:12)  
(Power engineering)

SOV/96-59-3-20/21

AUTHOR: Ilyukhin, N.V., \* Candidate of Technical Sciences

TITLE: The Main Directions of Scientific Work of the Central Boiler-Turbine Institute in 1959 (Osnovnyye napravleniya nauchnoy raboty TsKTI v 1959 g)

PERIODICAL: Teploenergetika, 1959, Nr 3, pp 88-93 (USSR)

ABSTRACT: The main directions of development of the Soviet Power Industry in the next 7 years are very briefly reviewed. A survey is then given of the results of the work of the Central Boiler-Turbine Institute in 1958. The main lines of the Institute's plan for 1959 are then given. There are ten main themes namely: installations for high and super-high steam conditions; gas-turbine installations; new types of furnaces; power installations of low output; automation of power equipment and its operation; establishment of design standards; the improvement of existing and the mastering of new types of equipment; gas-turbine manufacture; technical-economic investigation and planning of power engineering

Card 1/2 \* *D. Ilyukhin*

*Ilyukhin Nikolay Vas. 1905-1959*

*Teploenergetika Nr 3 No. 3 p 88-93 Mar 1959*

SOV/96-59-3-20/21

The Main Directions of Scientific Work of the Central Boiler-  
Turbine Institute in 1959

manufacture; and the standardisation of power equipment.  
There are 7 figures.

Card 2/2

ACCESSION NR: AP4041949

S/0286/64/000/012/0146/0146

AUTHOR: Ilyukhin, N. V.

TITLE: Transducer for an air-temperature measuring device. Class 42, No. 85113

SOURCE: Byul. izobr. i tovar. znakov, no. 12, 1964, 146

TOPIC TAGS: air temperature measurement, high velocity aircraft, thermocouple, resistance thermometer, temperature sensor

ABSTRACT: The Author Certificate introduces a transducer for an air-temperature measuring device for high-velocity aircraft. The sensor of the transducer consists of one or more thermocouples connected in series, or of a resistance thermometer, mounted on a cylinder made of a poor heat-conducting material. The sensor is equipped with radiation shielding. The constancy of the restoration coefficient and its near-to-unity value has been achieved by mounting the sensors on the face generatrix of the cylinder.

ASSOCIATION: none

Card 1/1

*Ilyukhin, V. F.*  
ASTAF'YEV, Georgiy Pavlovich; SHEBSHAYEVICH, Valentin Semenovich; YURKOV,  
Yuriy Alekseyevich; ILYUKHIN, V. F., red.; VOLKOVA, N. M., red.;  
KORUZEV, N. N., tekhn. red.

[Radio navigation equipemtn and systems] Radionavigatsionnye ustroi-  
stva i sistemy. Moskva, Izd-vo "Sovetskoe radio," 1958. 863 p.  
(Electronics in aeronautics) (MIRA 11:3)

YABLONSKIY, A. V. and VERSHININ, I. I. (Candidates of Veterinary Sciences,  
Sverdlovsk NIVS [Scientific Research Veterinary Experimental Station],  
ILYUKHIN, V. P. (Veterinary Doctor, Marmara (?) Wild Animal and Rabbit  
Breeding Farm).

"Dehelminthization of rabbits infested by passalurus..."  
Veterinariya, vol. 39, no. 2, February 1962 pp. 36

ILYUKHIN, V.S., kandidat tekhnicheskikh nauk; AVREBUKH, Yu.A., inzhener-ekonomist.

Technical and economic basis for selecting the most efficient routing of freight traffic. Study MTNI no.3:112-126 '56.  
(Railroads--Traffic) (MLRA 10:6)

ILYUEHIN, V.S., kand. tekhn. nauk.

Technical and economic comparison of alternate planning solutions.  
Trudy MTMI no.6:41-58 '57. (MIRA 11:5)  
(Railroad engineering)

ILYUKHIN, V.S., dots., kand.tekhn.nauk

Technical and economic justification of methods for the replacement  
of steam traction. Trudy MIIT no.129:17-23 '60. (MIRA 13:11)  
(Railroads--Electrification)  
(Diesel locomotives)

"Detonation Parameters."

Advance List of Soviet Papers for Possible Presentation at the 8th International  
Combustion Symposium, Cal Tech--29 Aug-2 Sep 60.

2.1000  
24-5300  
11.5000  
AUTHORS:

Ilyukhin, V. S., Pokhil, P. F.,  
Rozanov, O. K., Shvedova, N. S.,

69504

S/020/60/131/04/021/073  
B013/B007

TITLE:

Measurement of Shock Adiabates of Cast Trotyl, Crystalline  
Hexogen, and Nitromethane

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 131, Nr 4, pp 793-796 (USSR)

TEXT: The relatively low susceptibility to shock of the substances mentioned in the title makes it possible to determine their Hugoniot curves if no detonation occurs. For this purpose the authors employed the method of detonation. The experimental arrangement is schematically shown in figure 1. By using the conservation laws for mass and momentum in the passage of the substance through the shock wave and by employing the condition of steadiness at the interface between metal and the substance to be investigated it is possible to determine the pressure and volume of shock compression from the measured velocity of the shock wave in the material under consideration, from the velocity of mass in the metal, and from the shock adiabat. In the experiments carried out the authors used 5 mm thick copper plates as intermediate material between the active charge and the substance to be investigated. By measuring the velocity of motion of the free surface of the metal it is possible to determine the velocity of mass behind the front of the shock wave since the velocity of the

Card 1/3

Measurement of Shock Adiabates of Cast Trotyl,  
Crystalline Hexogen, and Nitromethane

69504  
S/020/60/131/04/021/073  
B013/B007

free surface is equal to double the mass velocity (cf Refs 1-3). The velocity of the shock wave in the substance under consideration and the velocity of motion of the free surface of the metal were determined by electric-contact transmitters the signals of which were produced by a cathode-ray oscilloscope of the type OK-15M (developed by the Institut khimicheskoy fiziki AN SSSR (Institute of Chemical Physics of the AS USSR)). The substances mentioned in the title detonate at pressures of between  $\sim 80 \cdot 10^3$  and  $100 \cdot 10^3$  atm. For these experiments the authors used 50 mm long and 20 mm thick samples. With rising pressure P of the shock wave entering the sample to be investigated detonation occurs at different distances l from the interface between metal and the explosive under consideration (cf Table 1). This delay of detonation is also used to extend the pressure range to be measured. The velocities of the shock wave measured in all experiments are contained in table 2. From the results obtained in this manner the authors derived empirical relations between the velocity of the shock wave and mass for all substances investigated. The following data were obtained: for hexogen:  $D = (2.87 + 1.61u) \text{ km/sec}$  (valid in the pressure range of from  $67 \cdot 10^9$  to  $155 \cdot 10^9$  bars); for trotyl:  $D = (2.93 + 1.41u) \text{ km/sec}$  (valid in the pressure range of from  $60 \cdot 10^9$  to  $139 \cdot 10^9$  bars);

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69504

Measurement of Shock Adiabates of Cast Trotyl,  
Crystalline Hexogen, and Nitromethane

8/020/60/131/04/021/073  
B013/B007

for nitromethane:  $D = (2.00 + 1.38 u)$  km/sec (valid in the pressure range of from  $20 \cdot 10^9$  to  $86 \cdot 10^9$  bars). Figure 3 shows the relations between the pressure  $P$  behind the front of the shock wave and the relative specific volume  $V/V_0$ . The extrapolation of the resulting Hugoniot curves up to the intersection with the Michelson straight carried out on the basis of the last-mentioned relations renders it possible to estimate the pressure at the chemical peak of the detonation wave as well as the ratio between the pressure at the chemical peak and the pressure in the Zhuge plane. Figure 3 shows data obtained by M. Ya. Vasil'yev, D. B. Balashov, and L. N. Mokrousov concerning isothermal static compression of trotyl and hexogen, according to which hexogen is less heated in dynamic compression than trotyl. There are 1 figure, 3 tables, and 6 references, 5 of which are Soviet.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics of the Academy of Sciences of the USSR)

PRESENTED: December 9, 1959, by N. N. Semenov, Academician

SUBMITTED: December 9, 1959

Card 3/3

27884

S/O20/61/140/001/024/024

B130/B101

1/4 (30°  
AUTHORS:Ilyukhin V. S., and Pokhil P. F.

TITLE:

Shock-wave sensitivity of some explosives

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 140, no. 1, 1961, 179-180

TEXT: The shock-wave sensitivity of explosives was determined by transferring the detonation from an active to a passive explosive with interposition of copper barriers. The distance ( $l$ ) from the interface "metal - passive explosive" to the initial point of detonation was determined by photographing the detonation transfer with an CDP(SFR) camera. TNT, hexogen, and TГ 50/50 (TG 50/50) of different densities were used as active explosives. The charge length was 100 mm, and the diameter 40 mm. The length of the passive explosive was 50 mm, and its diameter 20-30 mm. The thickness of the copper barrier varied from 5 to 30 mm. The minimum (critical) pressures of the front of the initiating shock wave corresponding to a maximum detonation delay are shown in Table 1. The test explosive is heated by the initiating shock wave to a temperature

Card 1/4

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B130/B101

Shock-wave sensitivity of some ...

ensuring a short ignition delay and a rapid chemical decomposition. The difference in sensitivity between the first six and the remaining explosives is explained by the different mechanisms of heating. Explosives of lower sensitivity and homogeneous, compact structure explode as soon as the entire substance is heated. This necessitates a strong initiating pulse. Granulated substances, however, are ignited on the surface of the grains, where the highest heating temperature is reached. The values of  $P_{crit}$  are not absolute. They can be reduced to one-half by increasing the dimensions of the active and the passive explosive correspondingly. In explosives ignited according to a ballistic mechanism,  $P_{crit}$  is a function of grain size, initial density, composition, etc. There are 1 table and 6 references: 4 Soviet and 2 non-Soviet. The reference to English-language publication reads as follows: W. B. Garn, J. Chem. Phys., 30, No. 3, 819 (1959). ✓

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics of the Academy of Sciences USSR)

Card 2/4

ILYUKHIN, V.S. (Moskva); KOLOGRIVOV, V.N. (Moskva)

Electromotive force of a pair of metals compressed by a shock  
wave. PMTF no.5:175-176 S-0 '62. (MIRA 16:1)  
(Shock waves) (Electromotive force)

ILYUKHIN, V.S., kand. tekhn. nauk

Great losses during the provisional operation of railroads.  
Zhel. dor. transp. 47 no.1:67-69 Ja '65. (MIRA 18:3)

L 05289-67 EWT(d)/EWP(c)/EWP(v)/EWP(k)/EWP(h)/EWP(l) IWP(c)

ACC NO: AR6021350

SOURCE CODE: UR/0372/66/000/002/G048/G048

42  
41  
B

AUTHOR: Ilyukhin, V. T.; Poletayev, V. D.

TITLE: Centralized monitoring and automatic punching in a system for the complex automation of experimental activities

SOURCE: Ref. zh. Kibern, Abs. 2G304

REF SOURCE: Sb. Turboporshn. dvigateli. M., Mashinostroyeniye, 1965, 272-281

TOPIC TAGS: electronic logic recorder, tape puncher, test monitoring, punching machine, data recording, diesel engine / ELRU-2m electronic logic recorder; LP-1 tape puncher

ABSTRACT: The development of the SAP-1 automatic punching system for diesel research is described. This system assures the automatic centralized reception of experimental findings and their punching on film tape in a form suitable for insertion into an Ural electronic computer. The system includes: an ELRU-2m electronic logic recorder, somewhat modified for operation with special pickups; an LP-1 tape puncher, manufactured by the Penza Punch-card Computer Plant; and a puncher controller, developed by the Kolomna Plant. To broaden the possibilities of the ELRU, originally developed for the centralized monitoring and digital

Card 1/2

UDC: 658.564.62.001.5

BRAGINTSEV, V.F.; ILYUKHIN, V.V.; PEDANOV, I.Ye.

Study of the Kapova cave. Nov.kar.i spel. no.3:76-77 '63.  
(MIRA 16:10)

L 07904-67 EWT(m)/EWP(t)/ETI IJP(c) JD  
ACC NR: AP6024674 (A, N) SOURCE CODE: UR/0070/65/011/004/0606/0689

AUTHOR: Chichagov, A. V.; Dom'yanets, L. N.; Ilyukhin, V. V.; Belov, N. V. 39  
B

ORG: Institute of Crystallography AN SSSR (Institut kristallografii AN SSSR);  
Moscow State University in, M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: Synthesis and crystal structure of cadmium molybdate

SOURCE: Kristallografiya, v. 11, no. 4, 1966, 686-689 27 27

TOPIC TAGS: cadmium compound, molybdate, crystallization, exchange reaction,  
stoichiometry, crystal lattice structure

ABSTRACT: The single crystals of  $CdMoO_4$  were the product of hydrothermal crystallization in the systems  $CdO-MoO_3-MCl-H_2O$  ( $M = Li, Na, K$ ). The synthesis was in an autoclave with working chamber volume 45 -- 50 cm<sup>3</sup>, at pressure 1,000 -- 1,500 atm for 3 -- 5 days. During the hydrothermal synthesis, in addition to the dissolution of the components, their transport, and crystallization of the cadmium molybdate in the cold zone of the autoclave, an exchange reaction between  $CdMoO_4$  and  $LiCl$  was observed in the liquid phase at  $LiCl$  concentrations larger than 20%, with formation of a mixed  $Li-Cd$ -molybdate of constant but non-stoichiometric composition. The

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UDC: 548.736.4

L 07904-67

ACC NR: AP6024674

single crystals were colorless, with dimensions up to 5 mm, with tetragonal lattice having parameters  $a = 5.17$ ,  $c = 11.19 \text{ \AA}$  ( $Z = 4$ ), space group  $C_{4h}^2 = I4_1/a$ . Diagrams of the structure and tables of the coordinates of the atoms and of the interatomic distances are presented. The properties are compared with those of other molybdates. Orig. art. has: 4 figures and 2 tables.

SUB CODE: 20/

SUBM DATE: 28Jan66/

ORIG REF: 003/

OTH REF: 004

Card 2/2 *gd*

ILYUKHIN, V.V.; BORISOV, S.V.

Quantitative evaluations of the maximums of the three-dimensional  
Pateron function. Zhur. strukt. khim. 1 no.1:80-85 My-Je '60.  
(MIRA 13:8)

1. Institut kristallografi AN SSSR i Institut neorganicheskoy  
khimii Sibirskogo otdeleniya AN SSSR.  
(Crystallography, Mathematical)

8/020/61/140/005/013/022  
B125/B138

18.9200

AUTHORS: Ilyukhin, V. V., and Belov, N. V., Academician  
 TITLE: Crystal structure of rubidium-di(meta)-fluoberyllate  $\text{RbBe}_2\text{F}_5$   
 PERIODICAL: Akademiya nauk SSSR. Doklady, v. 140, no. 5, 1961, 1066-1069

TEXT: Most of the publications on fluoberyllate systems have been issued by the Moscow laboratory of A. V. Novoselova (Usp. khim., 28, 33 (1959)) and the Leningrad laboratory of N. A. Toropov and R. G. Grebenshchikov (ZhNKh, 6, 4, 920 (1961), ZhNKh, 1, 12, 2686 (1956), ZhNKh, 1, 7, 1649 (1956), DAN, 114, 316 (1957)). Grebenshchikov Toropov also supplied the monocrystalline  $\text{RbBe}_2\text{F}_5$  plates for the study here described. The crystals are biaxial, have the low refractive index (1.332) characteristic of fluoberyllates, and a very low birefringence ( $\approx 0$ ). They have perfect cleavage along plane (001). The crystals have specific gravity 2.809, are only slightly hygroscopic, and are subject to polymorphous transformations during heating. The crystals are triclinic, and one cell has the parameters  $a = 7.98 \text{ \AA}$ ,  $b = 4.69 \text{ \AA}$ ,  $c = 6.12 \text{ \AA}$ ,  $\alpha = 89^\circ 40'$ ,  $\beta = 91^\circ$ ,  $\gamma = 90^\circ 27'$  ( $a:b \sim \sqrt{3}$ ). Reduction to the standard cell with three obtuse angles gives

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S/020/61/140/005/013/022  
B125/B138

Crystal structure of...

$a = 4.69 \text{ \AA}$ ,  $b = 4.61 \text{ \AA}$ ,  $c = 6.12 \text{ \AA}$ ,  $\alpha = 90^\circ 27'$ ,  $\beta = 90^\circ 20'$ ,  $\gamma = 120^\circ 48'$ ,  
 $a \approx b$ ,  $\alpha \approx \beta \approx 90^\circ$ ,  $\gamma \approx 120^\circ$ , i.e., the pseudoorthohexagonal cell is replaced  
by a pseudohexagonal primitive cell. The presence of piezoelectric effect,  
together with statistical analysis of the structural factors, rules out  
all symmetry groups except P1. The peaks of the Patterson syntheses  
 $p(xz)$  and  $p(yz)$  are indistinct. Table 1 shows the coordinates of the  
seven basal atoms (21 parameters) for the C1 cell. In the indisputable  
 $\text{BeF}_4$  tetrahedrons, the interatomic distances lie within the limits  
 $\text{Be-F} = 1.43 - 1.48 \text{ \AA}$ ,  $\text{F-F} = 2.33 - 2.41 \text{ \AA}$ . In the  $\text{RbF}_6$  octahedrons, the  
 $\text{Rb-F}$  distances remain within the limits  $2.82 - 3.08 \text{ \AA}$ . The principal  
structure of Rb difluoberyllate is, in the authors' opinion, a close-  
packed brucite (phlogopite) layer of Rb octahedrons, oriented parallel  
to (001). A hexagonal-patterned network of fluoberyllate tetrahedrons  
extends between the layers of Rb octahedrons. In the fluoberyllate analog,  
the di(meta) silicate model, there are no layers consisting of empty  
polyhedrons. The layer of tetrahedrons oriented in two directions along  
the pseudo-hexagonal axis may be conveniently called "one-and-a-half-  
storied". The fluoberyllate network characteristic of  $\text{RbBe}_2\text{F}_6$  has the  
same projection as all known silicic acid networks of the pseudo-hexagonal

Card 2/4

Crystal structure of...

20117  
S/O20/61/140/005/015/022  
B125/B138

type. There are 4 figures, 1 table, and 16 references: 1) Soviet and 3 non-Soviet. The three references to English-language publications read as follows: Intern. Tables for X-Ray Crystallogr. 1, 1952, p. 530; G. A. Sim, Acta Crystallogr., 11, 123 (1958); R. M. Douglass, Am. Miner., 42, 517 (1958).

SUBMITTED: July 14, 1961

Table. Coordinates of basal atoms (in hundredth parts of the cell axes) in the structure of  $RbBe_2F_5$ .

ATOMS	x	y	z	ATOMS	x	y	z
Rb	0	0	0	F <sub>1</sub>	25,0	33,4	52,5
F <sub>1</sub>	16,7	49,4	17,5	F <sub>2</sub>	31,9	00,4	80,0
F <sub>2</sub>	-2,5	49,5	47,0	Be <sub>i</sub>	15,0	54,5	41,3
F <sub>3</sub>	20,0	83,4	46,7	Be <sub>ii</sub>	31,0	5,0	56,3

Card 3/4

KRAVCHENKO, S.M.; VLASOVA, Ye.V.; KAZAKOVA, M.Ye.; ILYUKHIN, V.V.;  
ABRASHEV, K.K.

Innelite, a new barium silicate. Dokl. AN SSSR 141 no.5:1198-1199  
D '61. (MIRA 14:12)

1. Institut mineralogii, geokhimi i kristallogimii redkikh  
elementov AN SSSR. Predstavleno akademikom N.V. Belovym.  
(Yakutia—Barium silicates)  
(Minerals)

ILYUKHIN, V.V.

Some remarks on the statistical analysis of intensities in the case  
when a noncentrosymmetrical (acentric) cell contains a heavy atom.  
Kristallografiia 7 no.5:680-685 S-O '62. (MIRA 15:12)

1. Institut kristallografii AN SSSR.  
(Crystallography, Mathematical)

ILYUKHIN, V.V.; BORISOV, S.V.

Quantitative evaluation of the maximums of the two-dimensional  
Patterson function (method of integral characteristics). Zhur.  
strukt.khim. 4 no.4:602-609 JI-Ag '63. (MIRA 16:9)

1. Institut kristallografii AN SSSR i Institut neorganicheskoy  
khimii Sibirskogo otdeleniya AN SSSR, Novosibirsk.  
(Crystallography, Mathematical)

S/070/63/008/001/001/024  
E132/E460AUTHORS: Ilyukhin, V.V., Nikitin, A.V.

TITLE: Observations on the application of the statistical analysis of intensities

PERIODICAL: Kristallografiya, v.8, no.1, 1963, 5-9

TEXT: The statistical distribution of intensities is examined for the case of an atom in a special position with one parameter (linear symmetry). The influence of chance errors and "pseudoperiodicity" (pseudocentering) on the classical formulas of E.R.Howells, D.Rogers and D.C.Phillips is shown. Errors in the estimation of intensities affect the distribution  $N(z)$  and may give, in extreme cases, a false estimate of the symmetry, asymmetric crystals appearing as centered and centered as hypercentric. The omission of non-observed reflections may also affect  $N(z)$  for small  $z$ . An analysis is made of a two-dimensional case with different degrees of pseudo-symmetry (measured by  $n = \frac{F_{\text{odd}}^2}{F_{\text{even}}^2}$ ). The curves of  $N(z)$  are displaced by rotation, the intercept with the ordinate axis moving up to 25% for the case  $n = 0.5$ . Examples of such distributions are shown -

Card 1/2

Observations on the application ... S/070/63/008/001/001/024  
E132/E460

triphenylphosphine, methaemoglobin,  $MnAl_6$  etc. Amesite (Acta  
cryst., v.9, 1956, 487) shows an extreme example due to pseudo-  
periodicity. It is recommended that in such cases the  
reflections should be analysed separately in odd and even groups.  
Small numbers of reflections may, however, make this procedure  
impracticable. There are 3 figures. ✓

ASSOCIATION: Institut kristallografii AN SSSR  
(Institute of Crystallography AS USSR)

SUBMITTED: October 2, 1962

Card 2/2

DORFMAN, M.D.; ILYUKHIN, V.V.; BUROVA, T.A.

New mineral "barsanovit." Dokl. AN SSSR 153 no.5:1164-1167  
D '63. (MIRA 17:1)

1. Mineralogicheskiy muzey AN SSSR. Predstavleno akademikom  
N.V. Belovym.

MUSTAFAYEV, N. M.; ILYUKHIN, V. V.; BELOV, N. V., akademik

Crystal structure of roselite  $\text{Ca}_2\text{Co}[\text{AsO}_4]_2 \cdot 2\text{H}_2\text{O}$ . Dokl. AN SSSR  
155 no. 2:353-356 Mr '64. (MIRA 17:5)

NIKITIN, A.V.; ILYUKHIN, V.V.; LITVIN, B.N.; MEL'NIKOV, O.R.; BELOV, N.V.,  
akademik

Crystal structure of synthetic sodium titanosilicate  $\text{Na}_2(\text{TiO})[\text{SiO}]_4$ .  
Dokl. AN SSSR 157 no.6:1355-1357 Ag '64. (MIRA 17:9)



[Faint, illegible text, possibly a table or list, located in the center of the page.]

MUSTAFAYEV, N.M.; ILYUKHIN, V.V.; BELOV, N.V., akademik

Crystalline structure of K-fluoroberyllate  $K_2BeF_4(Ba_2SiO_4)$ . Dokl.

AN SSSR 159 no.6:1287-1289 D '64

(MIRA 18:1)

ABRASHEV, K.K.; ILYUKHIN, V.V.; BELOV, N.V.

Crystalline structure of barilite  $Ba^{137}e_2Si_2O_7$ . Use of difference syntheses for the exposure of light atoms in the presence of sufficiently heavy atoms. Kristallografiia 9 no.6:816-827 E.D '64. (MIRA 18:2)

1. Institut kristallografi AN SSSR.

LITVIN, B.N.; MEL'NIKOV, O.K.; ILYUKHIN, V.V.; NIKITEN, A.V.

New sodium zinc silicates. Kristallografiia 9 no.6:943-945  
N-D '64. (MIRA 18:2)

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MUSTAFAYEV, N.M.; ILYUKHIN, V.V.; BELOV, N.V., akademik

Crystalline structure of rubidium orthofluoberyllate  $\gamma$ -Rb<sub>2</sub>BeF<sub>4</sub>.  
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GUSEYNOV, G.G.; ILYUKHIN, V.V.; BELOV, N.V., akademik

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New data on "barsanovite." Trudy Min.muz. no. 165.  
(MIRA 18:8)

CHICHAGOV, A.P.; LUYCHIK, V.V.; BIRNBY, N.V., akademik

Crystal structure of cadmium tungstate  $CdWO_4$ . Dokl. AN SSSR 166  
no.1:87-89 Ja '66. (MIRA 19:1)

1. Moskovskiy gosudarstvennyy universiteta im. M.V.Lomonosova  
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SVETOV, A.A., izdat. tekhn. nauk; ILYUSHIN, V.V., izdat.

Roof slabs prestressed in two directions. Prem. stroit. 42  
no. 686-9 1964 (MIRA 10:12)

ACC NR: AP6019169

SOURCE CODE: 00/00/00/65/162/00/1053/1056

AUTHOR: Mustafayev, H. M.; Ilyukhin, V. V.; Belov, N. V. (Academician) 26  
B  
ORG: Institute of Crystallography, AN SSSR (Institut Kristallografi AN SSSR)  
TITLE: Crystal structure of rubidium orthofluoroberyllate (gamma-Rb sub 2 BeF sub 4)  
SOURCE: AN SSSR. Doklady, v. 162, no. 5, 1965, 1053-1056

TOPIC TAGS: rubidium compound, crystal structure  
ABSTRACT: Of the three polymorphic modifications of  $Rb_2BeF_4$ , the most stable, up to  $528^\circ$ , is the gamma form; the beta form is stable between  $528^\circ$ - $692^\circ$ ; and finally, the alpha form, from  $692^\circ$  to the melting point. The gamma form is easily obtained from an aqueous solution or from heating equivalent quantities of  $2MeF + BeF_2$  (as done by Mukherjee in 1944). Measurements were made of three almost isometric crystal pieces. The rhombohedral cell parameters were found to agree with previously published data. The existence of a mirror plane was found to be improbable, as was a center of symmetry. Application of the heavy atom method made it possible to establish all F atoms ( $z = 9$ ). Comparisons are made between gamma- $Rb_2BeF_4$  and other  $M_2EX_4$ -type structures, and the similarities and differences of their polyhedral structures are discussed. Orig. art. has: 3 figures and 1 table. [JPRS]

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Card 1/1 CC

ILYUKHIN, V.V., kand. fiz.-matem. nauk; DOBLEVANSKIY, V.M., kand. geol.-  
mineral. nauk; YEFREMOV, I.P.

First All-Union Congress of Speleologists-Sportmen. Peshchery  
no.3:112-113 '63. (MIRA 18:2)

IL'YUKHIN, Ya.G.

Political and educational work at the Institute. Trudy NTIPP  
2:19-28 '52. (MIRA 9:2)  
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ILYUKHIN, Ye.S.; SAGITOV, A.U.

Improving techniques for investigating flowing wells with a  
DGM-4 differential deep-well manometer. Nauch.-tekhn.sbor.po  
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ZAZOVSKIY, F.Ya.; ILYUKHIN, Ye.S.

Investigating wells under conditions of nonstationary gaseous-  
liquid flow. Nefteprom. delo no.6:8-12 '64. (MIRA 17:9)

1. Vsesoyuznyy neftegazovyy nauchno-issledovatel'skiy institut.

ACC NR: AP7002884

(A)

SOURCE CODE: UR/0201/66/000/004/0123/0125

AUTHOR: Nesterenko, V. B.; Timofeyev, B. D.; Il'yukhin, Yu. D.

ORG: Institute of Nuclear Power Engineering, AN BSSR (Institut yadernoy energetiki AN BSSR)

TITLE: Experimental study of the heat capacity of nitrogen tetroxide in equilibrium dissociation

SOURCE: AN BSSR. Vestsi. Seryya fizika-tekhnichnykh navuk, no. 4, 1966, 123-125

TOPIC TAGS: nitrogen tetroxide, heat capacity

ABSTRACT: The effective heat capacity of  $N_2O_4$  dissociating at 1 atm and 300—400K has been determined experimentally. The experiments were carried out in a continuous-flow calorimeter, equipped with an isothermal jacket, designed at the Institute of Nuclear Power Engineering, Academy of Sciences BSSR (IYaE AN BSSR). The apparatus and the procedure are described in the source. The effective heat capacity at constant pressure was calculated from the formula

$$c_{p,eff} = \frac{Q - q}{G \Delta t}$$

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ACC NR: AP7002884

was determined experimentally; it did not exceed 15% of the amount of the heat entering the calorimeter. The experimental heat capacity values are given in the figure together with the experimental heat capacity values of McCallum and with the heat capacity values calculated by the method of L. V. Mishina and V. B. Nesterenko (Vestsi AN BSSR, Ser. fiz.-tekh. navuk, no. 2, 1965). The results of the study indicated that the method of the IYAE AN BSSR makes it possible to determine the effective heat capacity of  $N_2O_4$  with an accuracy within 2.6%. Orig. art. has: 2 figures.

[W. A. 77]  
[BQ]

SUB CODE: 07,20 / SUBM DATE: 30Jun66/ ORIG REF: 003/ OTH REF: 002

Card 2/3

IL' YURINA, A.V., Cand Geol-Min Sci—(diss) "Lithology of deposits of  
*Motskaya* <sup>[?]</sup> formation of <sup>U2</sup> lower Cambrium of the Siberian plateau, a possible  
collectors of petroleum and gas." Irkutsk, 1958. 16 pp (Min of Higher  
Education USSR. Irkutsk State U im A.A.Zhdanov), 150 copies (K, 49-58, 121)